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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/727,594

12/05/2003

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EXAMINER

LEE, JOHN J

ART UNIT

PAPER NUMBER

2618

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DELIVERY MODE

05/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/727,594

Applicant(s)

DELBREIL ET AL.

Examiner

JOHN J. LEE

Art Unit

2618

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments with respect to claims 1 - 10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 13, 16, and 20** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding **claims 13, 16, and 20**: the limitation "The computer program product" is not patentable since the limitation does not fall under one of the statutory categories such that process, machine, manufacture or composition of matter.

The preamble of the claim 17 must start out as "The computer readable medium".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 - 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Umeda et al. (US 2002/0150228) in view of Eidson (US 6,411,824).

Regarding **claims 1 and 8**, Umeda teaches that a fixed transmitting station of a wireless telecommunication system (pages 3, paragraphs 26 – 28 and Fig. 1). Umeda teaches that an antenna (an antenna in (204) Fig. 2) connected to said fixed transmitting station (base station, fixed communication terminal, fixed repeater) (Fig. 1 and pages 3, paragraphs 27-28, where teaches an antenna coupled to the communication terminal (could be fixed communication terminal)). Umeda teaches that measurement means for in-situ electromagnetic field measurements of an electromagnetic environment of the antenna (204 in Fig. 3) at the fixed transmitting station (possible fixed communication terminal (200) in Fig. 3) (Fig. 3 and pages 5, paragraphs 47 – pages 6, paragraphs 53, where teaches measuring and determining changes in the electromagnetic wave environment may be detected in the communication terminal according to cell determination or transmission quality monitoring). Umeda teaches that transmitting of data being indicative of a measurement result from the measurement means to a central control unit (102 in Fig. 1) (Fig. 3 and pages 5, paragraphs 47 – pages 6, paragraphs 54, where teaches notifying of the electromagnetic wave environment measurement result of detection to report to central network).

Umeda does not exactly disclose the limitation “an antenna connected to the fixed transmitting station by at least one RF cable”. However, Eidson teaches the limitation “an antenna connected to the fixed transmitting station by at least one RF cable (110 connected 106 in Fig. 1)” (Fig. 1 and column 7 lines 16 – 48, an antenna connected to base station (fixed repeater, communication terminal) and the antenna being performed measuring the electromagnetic field). It would have been obvious to one having ordinary

skill in the art at the time the invention was made to modify the Umeda as taught by Eidson, provide the motivation to improve signal transmission and reception reliability and adaptability in wireless communication system.

Regarding **claim 2**, Umeda and Eidson teach all the limitation as discussed in claim 1. Furthermore, Umeda further teaches that the measurement means being mounted on the antenna (204 in Fig. 3) (Fig. 3 and pages 5, paragraphs 47 – pages 6, paragraphs 53, where teaches the antenna of the terminal measures the electromagnetic wave environment). The antenna (204 in Fig. 3) being coupled to at least one cable for one transmitting of radio frequency up-link and down-link signals (Fig. 3 and pages 4, paragraphs 35 – 38, where teaches an antenna being coupled by cable line to communicating section for communicating (transmitting of radio frequency) uplink and downlink signals) and the at least one cable being connected to the measurement means in order to couple the measurement means to a power supply (inherently the communication terminal has at least a power supply to connect antenna for performing the measurement), and for transmitting of the data being indicative of a measurement result” (Fig. 3 and pages 4, paragraphs 35 – 38, where teaches an antenna being connected by cable line to detecting section for measuring electromagnetic wave environment and coupled to power supply section (inherently coupled to power supply section, otherwise, it can not operate) for transmitting of the measurement result data of electromagnetic wave environment(also, Eidson teaches the limitation)).

Regarding **claim 3**, Umeda teaches that data processing means for monitoring of the data (Fig. 3 and pages 5, paragraphs 47 – pages 6, paragraphs 53, where teaches

measuring and determining changes in the electromagnetic wave environment may be detected in the communication terminal according to cell determination or transmission quality monitoring).

Regarding **claim 4**, Umeda teaches that the data processing means being adapted for the assessment of one of electromagnetic field levels or a drift of electromagnetic parameters related to the electromagnetic environment (Fig. 3 and pages 5, paragraphs 47 – pages 6, paragraphs 55, where teaches processing for measuring and setting of electromagnetic field levels (weak state or normal, comparing of reception levels)).

Regarding **claim 5**, Umeda teaches that the data processing means being adapted to generate one of a report and an alert message for the central control unit (Fig. 3 and pages 5, paragraphs 47 – pages 6, paragraphs 54, where teaches generating and notifying of the electromagnetic wave environment measurement result of detection to report to central network).

Regarding **claims 6 and 9**, Umeda teaches that controlling of at least one network parameter of the wireless telecommunication system based on the data (Fig. 3 and pages 5, paragraphs 47 – pages 6, paragraphs 55, where teaches controlling based on the electromagnetic wave environment measurement result of detection of a network of the wireless communication system).

Regarding **claim 7**, Umeda teaches that the central control unit being an operations and maintenance centre (Fig. 1, 2 and pages 5, paragraphs 47 – pages 6, paragraphs 55, where teaches central network being operation and management).

Regarding **claim 10**, Umeda and Eidson teach all the limitation as discussed in claims 1 and 6. Furthermore, Umeda further teaches that inputting of data being indicative of a measurement result of an electromagnetic field measurement of an environment of an antenna of a fixed transmitting station of a wireless telecommunication system (Fig. 3 and pages 5, paragraphs 47 – pages 6, paragraphs 55, where teaches measuring and determining changes in the electromagnetic wave environment may be detected in the communication terminal according to cell determination or transmission quality monitoring, and notifying of the electromagnetic wave environment measurement result of detection to report to central network).

Umeda does not exactly disclose the limitation “the electromagnetic field measurement being performed at a fixed location of said fixed transmitting station”. However, Eidson teaches the limitation “the electromagnetic field measurement being performed at a fixed location of said fixed transmitting station (110 connected 106 in Fig. 1)” (Fig. 1 and column 7 lines 16 – 48, an antenna (fixed location) connected to base station (fixed repeater, communication terminal) and the antenna being performed measuring the electromagnetic field at fixed location). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Umeda as taught by Eidson, provide the motivation to improve signal transmission and reception reliability and adaptability in wireless communication system.

Regarding **claims 11, 12, and 13**, Umeda and Eidson teach all the limitation as discussed in claims 1 and 10. However, Umeda does not specifically disclose the limitation “the measurement comprises monitoring the electromagnetic field

measurement a fixed probe at said transmitting station and connected to said antenna, and further wherein manual interaction is not required for obtaining said measurement”.

However, Eidson teaches the limitation “the measurement comprises monitoring the electromagnetic field measurement a fixed probe (210 in Fig. 1) at said transmitting station (110 in Fig. 1) and connected to said antenna (106 in Fig. 1), and further wherein manual interaction is not required for obtaining said measurement” (Fig. 1 and column 8 lines 50 – column 9, lines 65, an antenna (fixed location) connected to base station (fixed repeater, communication terminal) and fixed probe in the antenna being performed monitoring and measuring the electromagnetic field at fixed base station for obtaining the measurement result). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Umeda as taught by Eidson, provide the motivation to enhance an antenna element for improving signal transmission and reception reliability and adaptability in wireless communication system.

Regarding **claims 14, 15, and 16**, Umeda and Eidson teach all the limitation as discussed in claims 1 and 10. However, Umeda does not specifically disclose the limitation “the electromagnetic field measurement at said fixed transmitting station depends on electromagnetic fields of the antenna and an electromagnetic environment of the antenna”. However, Eidson teaches the limitation “the electromagnetic field measurement at said fixed transmitting station depends on electromagnetic fields of the antenna and an electromagnetic environment of the antenna” (Fig. 1 and column 8 lines 50 – column 9, lines 65, an antenna (fixed location) connected to base station (fixed repeater, communication terminal) and the base station performs measuring the

electromagnetic field depend on an electromagnetic environment of fixed probe in antenna that being performed monitoring and measuring the electromagnetic field environment for obtaining the measurement result). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Umeda as taught by Eidson, provide the motivation to enhance an electromagnetic field environment antenna element for improving signal transmission and reception reliability and adaptability in wireless communication system.

Regarding **claim 17**, Umeda and Eidson teach all the limitation as discussed in claims 1 and 8.

Regarding **claims 18, 19, and 20**, Umeda and Eidson teach all the limitation as discussed in claims 1 and 8. Furthermore, Umeda further teaches that a change in an electromagnetic environment of the fixed transmitting station (Fig. 3 and pages 5, paragraphs 47 – pages 6, paragraphs 54, where teaches as the change in electromagnetic wave environment corresponds to a change in a transmission quality in a case, notifying of the electromagnetic wave environment measurement result of detection to report to central network), due to an addition of another fixed transmitting station (another fixed communication terminal or base station), is immediately reported to said central control unit (102 in Fig. 1) (Fig. 3 and pages 5, paragraphs 47 – pages 6, paragraphs 54, where teaches as the change in electromagnetic wave environment corresponds to a change in a transmission quality in a case, notifying of the electromagnetic wave environment measurement result of detection to report to central network and handoffs another fixed transmitting station (base station)).

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Blatz et al. (US 6,970,679) discloses Method of Detecting a Redirection or Relaying of a Contactless Data Transmission Using at Least Two Sequentially Driven Transmitting Antennas.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Art Unit: 2618

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231
Or P.O. Box 1450
Alexandria VA 22313

or faxed (571) 273-8300, (for formal communications intended for entry)

Or: (703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to USPTO Headquarters,
Alexandria, VA.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to **John J. Lee** whose telephone number is **(571) 272-7880**.
He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00
pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor,
Edward Urban, can be reached on **(571) 272-7899**. Any inquiry of a general nature or
relating to the status of this application should be directed to the Group receptionist
whose telephone number is (703) 305-4700.

J.L
May 10, 2007

John J Lee


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
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